CLAIMS

1. An engine having a fixed portion and at least one separate cylinder block that defines at least one bore in which a piston can reciprocate, wherein the cylinder block rotates relative to the fixed portion to provide a work output.

2. The engine in the immediately preceding claim further characterised in that the fixed portion is a casing.

3. The engine as in any one of the preceding claims further characterised in that the cylinder block is a rotor.

4. The engine as in any one of the preceding claims further characterised in that the fixed portion retains that rotor such that the rotor is free to rotate about an axis of rotation passing through its centre.

5. The engine as in any one of the preceding claims further characterised in that the piston is oriented within the cylinder block such that the magnitude and sense of combustion are directed so as to maximise rotational effect of the cylinder block around its axis of rotation, relative to the fixed portion.

6. The engine as in any one of the preceding claims further characterised in that the piston has attached to it driving means that convert its reciprocating motion to a circular motion that assists in rotating the cylinder block relative to the fixed portion.

7. The engine as in any one of the preceding claims further characterised in that the driving means for each piston include a connecting rod, a crankshaft, and at least one pinion gear connected to the crankshaft such that the pinion gear engages at least one ring type gear fixed to the fixed portion.

8. The engine as in any one of the preceding claims further characterised in that the piston is oriented in a plane normal to the centre of rotation of the block.

9. The engine as in any one of the preceding claims further characterised in that the piston is oriented with its head pointed in the direction that the cylinder block will rotate.

10. The engine as in any one of the preceding claims further characterised in that the piston is offset form the centre of rotation of the block.

11. A method of effecting a cycle of an engine wherein as a working fluid in a cylinder bore expands and drives the cylinder and a block in opposing directions, this in turn rotates a pinion gear that is connected to a crankshaft, the pinion gear engages a ring type gear fixed to a fixed portion, such that the rotation of the pinion gear on the ring type gear rotates the cylinder block relative to the fixed portion thereby providing a work output, whilst simultaneously driving the piston back into a position where it can accept and then compress a fresh charge.

12. The method as in the immediately preceding claim further characterised in that the fresh charge comprises fresh working fluid.

13. The method as in any one of the preceding method claims further characterised in that the fresh charge comprises working fluid and fuel.

14. The method as in any one of the preceding claims further characterised in that the working fluid is air.

15. The method as in any one of the preceding claims further characterised in that the working fluid is steam.

16. The engine as in any one of the preceding claims further characterised in that the engine is an internal combustion engine.

17. The engine substantially as described in the specification with reference to and as illustrated by the accompanying illustrations.

18. The method as described in the specification with reference to and as illustrated by the accompanying illustrations.